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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,233	11/26/2003	Yoshiyuki Katoh	019970-010	5685

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BURNS DOANE SWECKER & MATHIS L L P
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

NGUYEN, XUAN LAN T

ART UNIT PAPER NUMBER

3683

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/721,233

Applicant(s)

KATOH, YOSHIYUKI

Examiner

Lan Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5-9 and 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10-13, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/13/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species C in the reply filed on 6/28/04 is acknowledged. The traversal is on the ground(s) that there would not be serious burden to examine all the embodiments. This is not found persuasive because the three species, as stated in the office action dated 5/28/04, comprise very distinct structures from one another as illustrated and described. Furthermore, they are also distinctively claimed. Claims 5-9 and 14-18 have been withdrawn from further consideration for pertaining to non-elected embodiments.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

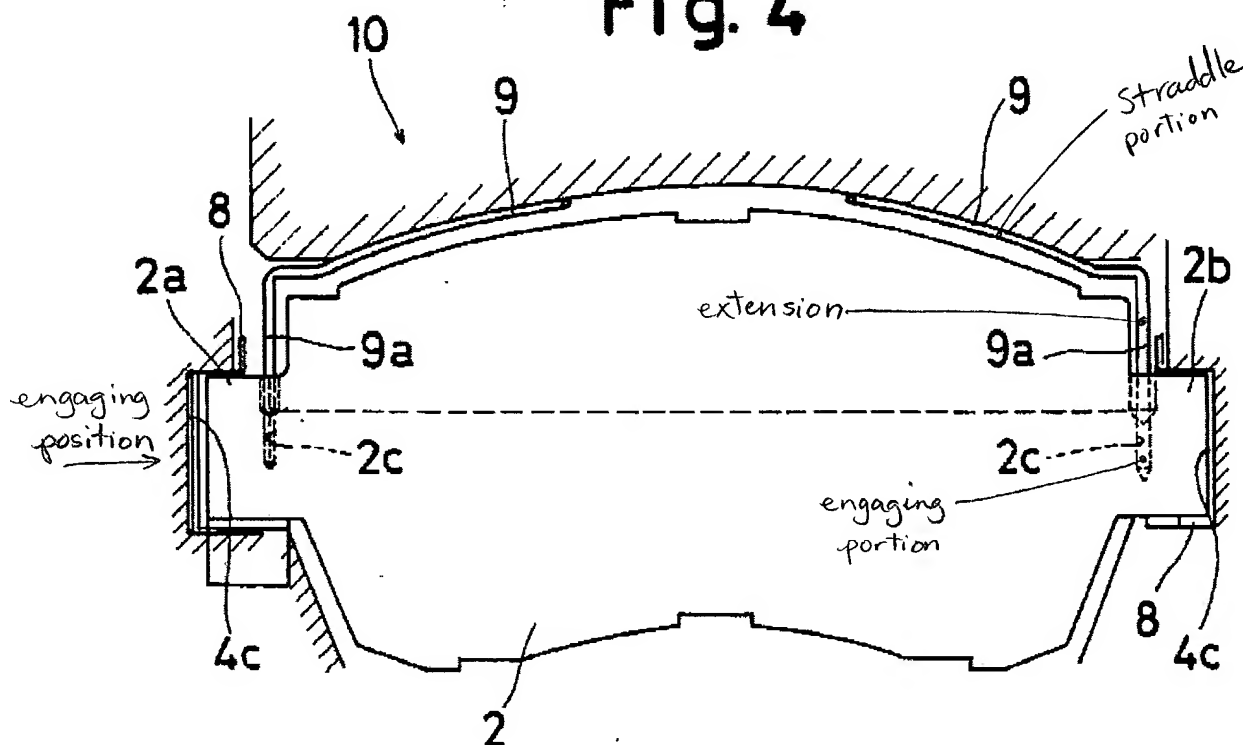
3. Claims 1, 2, 10-13, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuruta.

Re: claim 1, Tsuruta shows a disk brake assembly, as in the present invention, comprising: a disk rotor 1 having a central axis; a pair of friction pads 2,3 arranged and constructed to be pressed against the disk rotor from opposing sides in an axial

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direction of the disk rotor and a return spring 9 coupled to the friction pads and arranged and constructed to bias the friction pads in directions away from the disk rotor, wherein: the return spring includes a straddle portion, a pair of extensions and a pair of engaging portions, as indicated on the figure below, the straddle portion is disposed radially outside of the disk rotor and extends in the axial direction across the thickness of the disk rotor in order to straddle the disk rotor, each of the extensions extends from the straddle portion, in a direction substantially toward the central axis of the disk rotor, to an engaging position that is proximate to a centerline of one of the friction pads with respect to a radial direction of the disk rotor; each of the engaging portions is disposed at one end of each extension and engages one of the friction pads at the engaging position, as shown in the figure below.

Fig. 4



Re: claim 2, Tsuruta further shows a mount 4a arranged and constructed to support the friction pads; and a slide guide device including a first guide portion 4c and a second guide portion 2b provided on the mount and each of the friction pads, so that the second guide portion can slide relative to the first guide portion, wherein: the second guide portion is disposed at the engaging position; and each of the engaging portions of the return spring engages the second guide portion.

Re: claim 10, figure 4 shows the extensions located in a gap between the mount and the ends of the friction pads.

Re: claim 11, figure 2 shows the caliper and the straddle portion extending circumferentially and located in a gap between the caliper and the friction pads as claimed.

Re: claim 12, the discussion of the rejection of claim 1 meets the claimed limitations of claim 12.

Re: claim 13, Tsuruta shows spring 9 to be a wire spring.

Re: claim 19, Tsuruta shows in figure 4 the joint portions to be located proximal to a central line of the friction pads.

Re: claim 20, figure 4 shows the extensions extends and contact the friction pads as claimed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuruta in view of Hikari.

Tsuruta shows in figure 3 a pair of friction pads with back plates and friction members and the second guide portions as claimed. Tsuruta shows in figure 4 the extensions and engaging portions wherein the extensions and engaging portions perform the task of pressing the frictions pads away from the rotor. Tsuruta does not

show the pressing portions to be distinct from the extensions and the engaging portions since the engaging portions are securely embedded within the back plates. Hikari shows an alternative structure of a return spring 21 in figure 4 wherein said spring 21 distinctively comprises pressing portions 21b and engaging portions as the bents to engage holes 7. The structure of the pressing portions and engaging portions of Hikari's spring provide an alternative design, which accomplishes the same task as the engaging portions of Tsuruta. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Tsuruta's spring to have comprised the pressing portions and engaging portions as taught by Hikari in order for the springs to be used with existing friction pads without too much modifications to the pads and still provides the same benefit of properly returning the pads without the unwanted dragging effect as taught by Hikari.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takagi shows another return spring.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Nguyen whose telephone number is 703-308-8347. The examiner can normally be reached on M-F, 8 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lan Nguyen 7/14/04
Lan Nguyen
Patent Examiner
A. U. 3683